

CLAIMS

What is claimed is:

1. A method of servicing a wellbore, comprising: using a loop system to heat oil in a subterranean formation contacted by the wellbore, wherein the loop system conveys steam down the wellbore.
2. The method of claim 1, wherein the loop system returns fluid from the wellbore.
3. The method of claim 2, wherein the fluid comprises condensate, steam, or combinations thereof.
4. The method of claim 1, wherein the loop system comprises a closed loop that circulates the steam through a conduit disposed in the wellbore such that heat is transferred from the steam to the subterranean formation.
5. The method of claim 1, further comprising injecting at least a portion of the steam from the loop system into the subterranean formation.
6. The method of claim 5, wherein another material is injected into the subterranean formation before, after, or concurrent with injecting the steam.
7. The method of claim 6, wherein the another material is recovered from the subterranean formation prior to being injected therein.
8. The method of claim 6, wherein the another material comprises an oil-soluble fluid.
9. The method of claim 4, wherein the steam is circulated through the loop system until the steam is substantially absent of condensate, and then the loop system is switched from the closed loop to an open loop in which at least a portion of the steam is injected into the subterranean formation.

10. The method of claim 9, wherein the steam is injected from the loop system into the subterranean formation until a predetermined temperature is achieved at a location in the wellbore.
11. The method of claim 9, wherein the loop system comprises one or more valves for controlling the injection of the steam into the subterranean formation.
12. The method of claim 11, wherein the loop system can automatically or manually be switched from a closed loop system in which all of the valves are closed to an injection system in which the valves are regulated to control the flow of the steam into the subterranean formation.
13. The method of claim 11, wherein the valve comprises a thermally-controlled valve, a pressure-activated valve, a spring loaded-control valve, a surface-controlled valve, a hydraulically-controlled valve, a fiber optic-controlled valve, a sub-surface controlled valve, a manual valve, or combinations thereof.
14. The method of claim 10, wherein the loop system comprises one or more thermally-controlled valves for regulating the flow of the steam into the subterranean formation.
15. The method of claim 11, wherein the one or more valves correspond to one or more heating zones in the subterranean formation such that the steam may be selectively injected into the heating zones.
16. The method of claim 15, wherein the one or more heating zones are isolated from each other by one or more isolation packers.
17. The method of claim 14, wherein the one or more thermally-controlled valves correspond to one or more heating zones in the subterranean formation such that the steam may be selectively injected into the heating zones.

18. The method of claim 17, wherein each thermally-controlled valve controls the injection of the steam into the subterranean formation in response to the temperature corresponding to the heating zone.
19. Removed because thermally-controlled valve is defined in the specification.
20. The method of claim 18, wherein the control results in the injection of about saturated steam.
21. The method of claim 1, further comprising recovering oil from the subterranean formation.
22. The method of claim 18, further comprising recovering oil from the subterranean formation.
23. The method of claim 21, wherein the recovery of oil and the condensate are simultaneous.
24. The method of claim 21, wherein the recovery of oil and the condensate are sequential.
25. The method of claim 1, further comprising reheating the condensate to form a portion of the steam.
26. The method of claim 21, wherein the oil and the condensate are recovered from a common wellbore.
27. The method of claim 21, wherein the oil and the condensate are recovered from different wellbores.
28. The method of claim 21, wherein the oil and condensate are recovered from a multilateral wellbore.
29. The method of claim 21, wherein the oil and the condensate are recovered from a SAGD wellbore.

30. The method of claim 22, wherein the oil and the condensate are recovered from a SAGD wellbore.
31. The method of claim 1, wherein the subterranean formation comprises oil and tar sands.
32. The method of claim 1, further comprising passing a chemical into the loop system for reducing contaminants therein.
33. A system for servicing a wellbore, comprising: a steam loop disposed within the wellbore.
34. The system of claim 33, wherein the steam loop comprises a steam boiler coupled to a steam injection conduit coupled to a condensate recovery conduit.
35. The system of claim 34, wherein the steam boiler is fired from hydrocarbons recovered from the wellbore.
36. The system of claim 34, wherein the steam loop further comprises one or more control valves in the steam injection conduit.
37. The system of claim 36, wherein the control valve comprises a thermally-controlled valve, a pressure-activated valve, a spring loaded-control valve, a surface-controlled valve, a hydraulically-controlled valve, a fiber optic-controlled valve, a sub-surface controlled valve, a manual valve, or combinations thereof.
38. The system of claim 34, further comprising a steam trap disposed between the steam injection conduit and the condensate recovery conduit.
39. The system of claim 34, further comprising a condensate pump disposed within the condensate recovery conduit.
40. The system of claim 39, further comprising a flash tank disposed within the condensate recovery conduit.

41. The system of claim 33, wherein the wellbore is a multilateral wellbore.
42. The system of claim 33, wherein the wellbore is an SAGD wellbore.
43. The system of claim 42, wherein the steam boiler is fired from hydrocarbons recovered from the wellbore.
44. The system of claim 33, further comprising means for recovering oil from the wellbore.
45. The system of claim 33, wherein the means for recovering oil comprises an oil recovery conduit.
46. The system of claim 45, wherein the steam injection conduit, the condensate recovery conduit, or both are disposed within the oil recovery conduit.
47. The system of claim 46, wherein the wellbore is an SAGD wellbore.
48. The system of claim 46, wherein the steam injection conduit and the condensate recovery conduit are arranged in a concentric configuration.
49. The system of claim 33, wherein the wellbore contacts a subterranean formation comprising oil and tar sands.
50. The system of claim 36, wherein the steam loop is capable of being automatically or manually switched from a closed loop system in which all of the control valves are closed to an injection system in which the control valves are regulated to control the flow of the steam into the subterranean formation.
51. The system of claim 36, wherein the one or more valves correspond to one or more heating zones in the subterranean formation such that the steam may be selectively injected into the heating zones.
52. The system of claim 51, wherein the one or more heating zones are isolated from each other by one or more isolation packers.

53. The system of claim 52, wherein the one or more heating zones
54. The system of claim 36, wherein one or more control valves are disposed in the oil recovery conduit.
55. A method of servicing a wellbore, comprising: injecting fluid into a subterranean formation contacted by the wellbore for heating the subterranean formation, wherein the wellbore comprises a plurality of heating zones.
56. The method of claim 55, further comprising using a plurality of control valves disposed in the wellbore to regulate the flow of the fluid into the wellbore, wherein the valves correspond to the heating zones such that the fluid may be selectively injected into the heating zones.
57. The method of claim 56, wherein one or more of the control valves are thermally controlled.
58. The method of claim 55, wherein the heating zones are isolated from each other by isolation packers.
59. The method of claim 55, wherein the fluid comprises steam, heated water, or combinations thereof.
60. A system for servicing a wellbore, comprising: a delivery conduit for injecting fluid into a subterranean formation penetrated by the wellbore, wherein the delivery conduit comprises a plurality of heating zones that correspond to heating zones in the wellbore.
61. The system of claim 60, wherein the heating zones are isolated by isolation packers.
62. The system of claim 60, further comprising control valves in the delivery conduit that correspond to the heating zones for selectively injecting the fluid into the respective heating zones.

63. A method of servicing a wellbore, comprising: using a loop system disposed in the wellbore to controllably release fluid into a subterranean formation contacted by the wellbore for heating the subterranean formation.
64. The method of claim 63, wherein the fluid comprises steam, heated water, or combinations thereof.
65. The method of claim 63, further comprising using the loop system to return the same or different fluid from the wellbore.
66. The method of claim 64, wherein the loop system comprises one or more control valves for controlling the injection of the fluid into the subterranean formation.
67. The method of claim 66, wherein one or more of the control valves are thermally controlled.
68. The method of claim 66, wherein the loop system can be automatically or manually switched from a closed loop system in which all of the control valves are closed to an injection system in which one or more of the control valves are regulated open to control the flow of the fluid into the subterranean formation.
69. A system for servicing a wellbore, comprising a loop system configured for disposal in the wellbore and capable of controllably releasing fluid into a subterranean formation contacted by the wellbore for heating the subterranean formation.
70. The system of claim 69, wherein the fluid comprises steam, heated water, or combinations thereof.
71. The system of claim 69, wherein the loop system comprises one or more control valves for controlling the release of the fluid into the subterranean formation.

72. The method of claim 71, wherein one or more of the control valves are thermally controlled.

73. The system of claim 71, wherein the loop system is capable of being automatically or manually switched from a closed loop system in which all of the control valves are closed to an injection system in which one or more of the control valves are regulated open to control the flow of the fluid into the subterranean formation.